

## Spiral Electric FX

### Cool Things

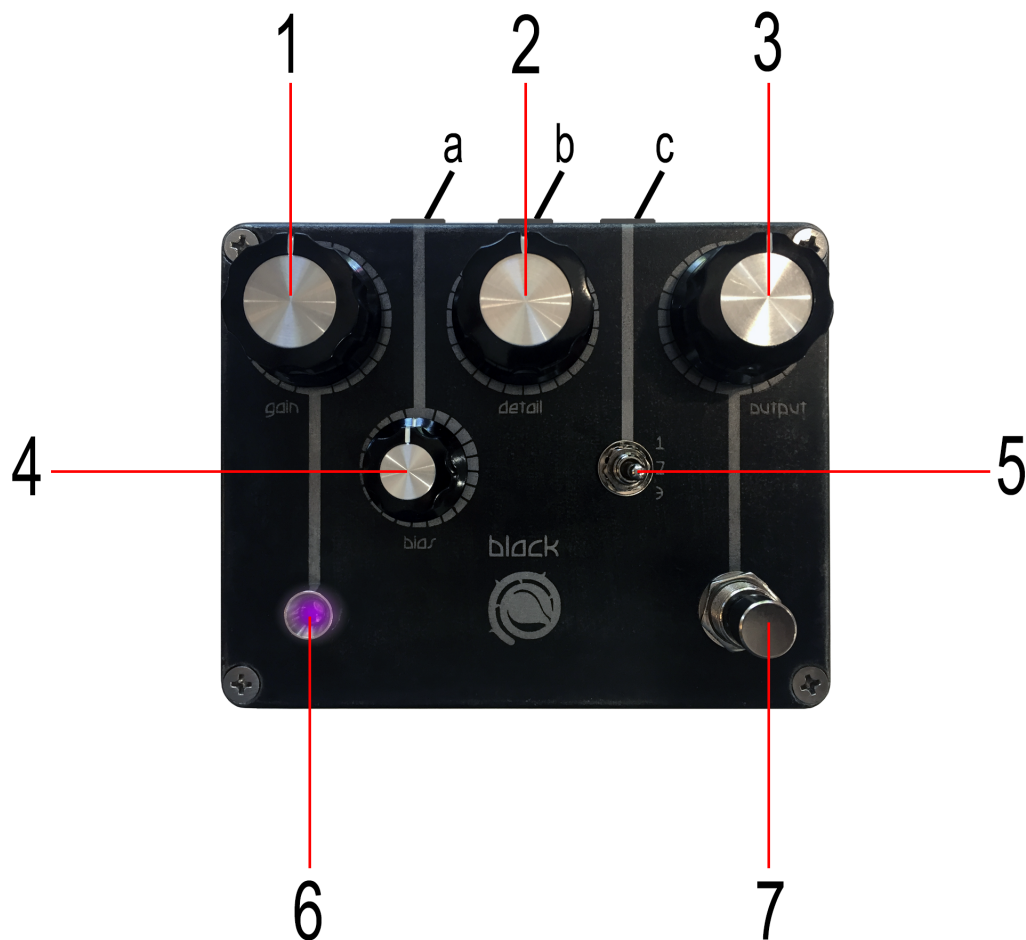
- Family Shop started by Tom Cram, July 2018 (The day after Summer NAMM)
- Designed, Hand Made, Hand Wired, in the USA - All metal work, wood work, assembly, soldering/wiring, etc. is done in-house
- Committed to having every step touched by a human

## Black Spiral Fuzz

### Cool Things

- Separate Gain and Bias control yield a wide array of fuzz tones, from overdrive to splatty, horn-like sounds
- Incredible clean-up with guitar volume
- Circuit Based on '70's era Maestro Fuzz
- Nanolog N2 Molecular Junction
- Three-Way toggle Voicing:
  1. N2 + Silicon
  2. N2
  3. N2 + Germanium
- True Bypass
- 100% Analog
- Industrial, Textural, Chemical Oxide Top
- Laser-Etched Graphics
- Brushed Aluminum Chassis
- High-Quality Parts Throughout
- Mix of classic and high-tech in both aesthetics and sonics

## Black Spiral Manual



1. GAIN: Clockwise increases gain, counter-clockwise decreases gain
2. DETAIL: Clockwise increases treble, counter-clockwise decreases treble
3. OUTPUT: Clockwise increases output, counter clockwise decreases treble
4. BIAS: Changes the texture of the fuzz
5. TOGGLE: Adds or removes clipping diodes for different clipping combinations

1. N2 + Silicon
2. N2

### 3. N2 + Germanium

- 6. LED: Indicates whether pedal is engaged or not
- 7. FOOTSWITCH: Soft-Click true-bypass footswitch, the quietest 3PDT we could find.
  - a. OUTPUT JACK: Connect to the input of amplifier
  - b. POWER JACK: Connect power here (9v DC Center-Negative)
  - c. INPUT JACK: Connect guitar cable here

#### **USING THE BLACK SPIRAL:**

The Black Spiral can be set to cover an unusually wide-range of fuzz tones. The interaction between the GAIN, BIAS, and voicing TOGGLE yields tones from overdrive, to fuzztortion, to all-out gated and spitty horn-like sounds.

In use with a clean amp or channel, the Black Spiral DETAIL control will rarely go above noon, the rest of the DETAIL travel is meant to either make up for loss of attack and the extreme sag caused by higher BIAS settings. or to make up for loss of attack when the GAIN and BIAS controls are both set low and the attack tends to get indistinct. However, since the Black Spiral also has a lot of output, and a lot of treble available, this makes it work well as a boost and a treble-booster. When used as a boost or treble-booster an increase in noise may be apparent, the secret is to not stop playing!

If you are using it with a dirty amp/channel and you need more definition for solos, crank up the DETAIL, it will work much like classic treble-boosters of yore. Or if you want to hit the input of your amp hard and dial in some sag with the BIAS, crank the OUTPUT of the Black Spiral and punish your amp's input. Another thing to keep in mind with the DETAIL control is that it can tame extreme settings of the GAIN and BIAS. If you have both of these controls cranked and you get oscillation, turn the DETAIL all the way counter-clockwise to tame it.

The TOGGLE provides 3 different sounding clipping options. POSITION 1 is the sound of Silicon diodes in combination with the Nanolog N2. This yields a very aggressive and tight fuzz sound. This setting is slightly louder than the other 2 positions.

POSITION 2 is considered the default voice of the Black Spiral Fuzz and it is purely the sound of the fuzz circuit and the Nanolog N2 Molecular Junction. The N2 is remarkable not just because it is quantum tunneling technology but also that it has a pleasing clipping characteristic that is not unlike Germanium diodes, but without the volume loss typically associated with Germanium.

POSITION 3 is the sound of Germanium diodes in combination with the Nanolog N2. This is the loosest and smoothest setting of the Black Spiral. POSITION 3 in combination with your neck pickup and higher GAIN settings is a sweet lead tone that still jumps out in a mix.

From personal use I have found that with Humbuckers, the DETAIL control stays in the 10:00-12:00 range. But with single-coils, P90's, or gold-foils, I roll the DETAIL back to 8:00-9:00. On this note, the Black Spiral also responds very dynamically to the output of your pickups, if you have low-output pickups, you won't hit the first stage of the Black Spiral very hard, and therefore you may not get some of the more extreme fuzz that is available in the

Black Spiral. In this situation, consider placing the Black Spiral after a boost pedal to give you the option of more headroom, or more fuzz, depending on whether the boost pedal is on or off.

The Black Spiral responds very well to volume knob changes and pick attack dynamics. It cleans up in a controlled and pleasing manner like classic overdrive fuzzes, especially when the BIAS is set low. A good rule of thumb to keep oscillation under control, is that for every increase in the GAIN decrease the BIAS by the same amount, and for every increase in the BIAS, decrease the GAIN the same amount. However, some truly great sounds are available when these controls are in the ~3:00 range, so don't be afraid of a little oscillation and craziness. Setting the BIAS to higher clockwise ranges, the Black Spiral's gain and attack characteristics become less-responsive to volume changes on the guitar, but much more aggressive fuzz tones are available. These ranges are when the splattier, gated, synthy, horn-like sounds reside.

In general the Black Spiral, like any gain device, should be placed at the start of the chain. However, the Black Spiral isn't affected by being placed after a buffer, so experimentation with placement is encouraged!

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**SPECIFICATIONS:**

Input: 1/4" TS Unbalanced - 500 k $\Omega$

Output: 1/4" TS Unbalanced - 1 k $\Omega$

Current Draw: 7 mA

Bypass: True Bypass

Power: 9VDC Center Negative